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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,133	09/24/2003	Omayma El-Sayed Moharram	OMCS-001-US	2018

68108 7590 04/29/2010  
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EXAMINER
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ANTONIENKO, DEBRA L

ART UNIT	PAPER NUMBER
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3689

NOTIFICATION DATE	DELIVERY MODE
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04/29/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/668,133	<b>Applicant(s)</b> MOHARRAM, OMAIMA EL-SAYED	
	<b>Examiner</b> DEBRA ANTONIENKO	<b>Art Unit</b> 3689	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19,21-26 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19,21-26 and 31-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

2. This is a Non-Final Office Action in response to communications received 15 January 2010 wherein:

Claims 1-19, 21-26, and 31-38 have been amended;

Claims 20 and 27-30 and 39 have been cancelled; therefore,

Claims 1-19, 21-26, and 31-38 are pending.

### ***Response to Arguments***

3. As to remarks regarding EURESCOM as a reference, Applicant noted that:

The EURESCOM Project P901 provides framework and guidelines for high level executive investment analysis modeling for investment, operation, administration, and maintenance cost (D2, Volume 1 and Volume 2). The high level nature of the information necessitated the EURESCOM and PARTICIPANTS disclaimer (D2, Volume 1, page 2, paragraph 5) which states that:

"Neither the PARTICIPANTS nor EURESCOM warrant that the information contained in the report is capable of use, nor that use of the information is free from risk, and accepts no liability for loss or damage suffered by any person using this information."

Accordingly, a skilled person in the art reading EURESCOM Project P901 would not be able to use the information of the project and re-produce the results of the project due to lack of details in the specification of various methodologies and models.

Examiner asserts that a person skilled in the art would certainly be able to use the information provided in the teachings of EURESCOM without undue experimentation. That the project is directed to investment with a liability disclaimer does not negate the facts of the considerations

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taken into account. Furthermore, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, EURESCOM Project P901-PF addresses the determination and analysis of business parameters for telecommunications networks as does the present application. Therefore, the examiner asserts that EURESCOM Project P901-PF is indeed analogous to the present application.

### ***Specification***

4. The amendments to the specification is objected to under 35 USC 132(a) because it introduces new matter into the disclosure. 35 USC 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. It appears that added material is not supported by the original disclosure. For example, amended paragraph [0009] states "engineering...processes" and "determining...processes costs." Examiner asserts that engineering a process is not the same as determining a process cost. Similarly, amended paragraphs [0020] and [0021] change "selecting" to "engineering." Examiner asserts that selecting a process is not the same as engineering a process. Likewise, amendments to paragraph [0169] have blurred exactly what is being selected and what is being engineered. These amendments must be supported elsewhere in the specification as originally filed. Examiner has noted only several amended paragraphs of the 16 pages of amendments to the specification. Applicant is required to indicate where in the original specification there is support for such extensive amendments to the specification as originally filed or to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 31-38** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In order for a method to be considered a process under 35 USC § 101, a claimed process must either: (1) be tied to another statutory class (such as a particular machine or apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008). If the claim language does not include the required tie or transformation, the method is not a patent eligible process under 35 USC § 101 and thus is directed to non-statutory subject matter.

To qualify as a patent-eligible process, a method claim must meet a specialized, limited meaning. The particular machine or apparatus must be positively recited in the body of the claim showing its significant function in the invention, for example, by identifying the machine or apparatus that accomplishes the significant method step(s). Or the subject matter that is being transformed must be positively recited, for example, by identifying the material that is being changed to a different state.

There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant extra-solution activity will not transform an

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unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

Independent claim 31 recites a computer in the preamble, however, this does not show its significant function regarding method step(s). Therefore, without the required tie or transformation, claim 31 is directed to nonstatutory subject matter. Claims 32-38 are dependent and are rejected in a like manner.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-10 and 31-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngi et al., U.S. Patent Application Publication Number 2003/015765 A1 (hereinafter Ngi) in view of EURESCOM Project P901-PF Extended investment analysis of telecommunication operator strategies (hereinafter EURESCOM):

Deliverable 1: Investment analysis framework definition and requirements specification (hereinafter D1);

Deliverable 2: Investment Analysis Modeling (hereinafter D2).

**Regarding claims 1 and 31**, Ngi discloses a computer program product and method, respectively, comprising a computer-readable medium having stored thereon instructions for causing a computer to perform a process for assessing business solutions comprising

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alternative network architectures and management processes for a telecommunications network, the computer program product comprising instructions for: (a) receiving data and options for plurality of network architectures, network management processes, and service and customer management processes ([0015]; [0031]-[0033]; [0097]; [0122]); (b) engineering the plurality of network architectures based on the data and options of (a) ([0055]); (g) determining, based on the costs of the plurality of network architectures and the network management processes and the service and customer management processes, business parameters for the business solutions ([0015]; [0031]-[0033]; [0097]; [0122]); and (h) storing and displaying the business parameters for the business solutions for the telecommunications network ([0015]).

Ngi does not explicitly disclose limitations (c)-(f), however, EURESCOM teaches (c) determining suppliers' equipment costs for said plurality of network architectures (D1, Volume 2: page 49, paragraph 5; page 50, paragraph 5; page 86, paragraph 7); (d) engineering the network management processes and the service and customer management processes, based on the data and options of (a), for managing said plurality of network architectures (D2, Volume 1: page 11, Table 1); (e) determining suppliers' management processes costs for the network management processes and the service and customer management processes (D2, Volume 1: page 11, Table 1; *Identification of sources of running costs: Customer care management, Service & Service Management, Network and System Management*); (f) validating and calibrating the data and options and the costs for the plurality of network architectures, the network management processes, and the service and customer management processes (D1, Volume 2: page 28, paragraph 1; page 5, paragraph 1; D2, Volume 2: pages 30-31, Section 3.2.2; pages 34-35, Section 3.4).

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Ngi discloses a network analysis tool that allows network planning and business modeling to generate customer proposals (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi's invention to include all costs in order to enable a comprehensive business decision.

**Regarding claim 2**, Ngi does not disclose wherein the instructions (a) comprise instructions for causing the computer to receive traffic data; customer data; and financial and labor data.

However, EURESCOM teaches receiving traffic data; customer data; and financial and labor data (D1, Volume 2: page 10, paragraph 4; page 13, paragraph 3; page 14, paragraph 1; page 77, paragraph 1 and Figure 23). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include traffic, customer, and financial and labor data in order to allow for a thorough evaluation of a communications network.

**Regarding claims 3, 33, and 36**, Ngi further discloses wherein the instructions (a) further comprise instructions for causing the computer to: receive technology options which comprise at least one of: time division multiplexing (TDM), asynchronous transfer mode (ATM), frame relay (FR), Internet protocol (IP), virtual private network (VPN), multi protocol label switching (MPLS), and optical Ethernet including fiber, synchronous optical network (SONET), resilience packet ring (RPR), and dense wavelength division multiplexing (DWDM) for a network architecture for a business solution ([0055]).

EURESCOM further teaches to receive options for the network management processes which comprise at least one of: inside plant maintenance, outside plant maintenance, network engineering, network provisioning, installation, testing, and repairs for managing the network



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architecture for the business solution (D2, Volume 1: page 11, Table 1; page 12, Table 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include network provisioning as a management process in order to enable a comprehensive business decision.

EURESCOM further teaches to receive options for the service and customer management processes which comprise at least one of: customer relationship management (CRM), work order management (WOM), network inventory management (NIM), service activation and provisioning (SAP), fault management (FM), performance management (PM), accounting and billing, and security management for managing the network architecture for the business solution (D2, Volume 1: page 11, Table 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include customer relationship as a management process in order to enable a comprehensive business decision.

**Regarding claims 4 and 32,** Ngi does not disclose wherein the instructions (g) comprise instructions for causing the computer to: compute the business parameters for the business solutions over a pre-determined study period. However, EURESCOM teaches to compute the business parameters for the business solutions over a pre-determined study period (D1, Volume 2: page 6, paragraph 5; page 7, paragraph 3; page 75, paragraph 7; page 76, paragraph 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to compute business parameters over a period of time to allow for comparison in order to enable a comprehensive business decision.

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Ngi further discloses to determine the business parameters which comprise at least one of: capital expenditure (CAPEX), wherein the CAPEX comprises a network architecture cost, taxes, interests, and depreciation and amortization (D/A) expenses; operational expenditure (OPEX), wherein the OPEX comprises a management processes cost, a leasing cost, and sales, general and administration (SG&A); revenue; capacity; return on investment (ROI); earnings before interest, taxes, and depreciation and amortization (EBITDA); earnings before interest and taxes (EBIT); the OPEX as percentage of the revenue; and total expenditure as percentage of the revenue, wherein the total expenditure comprises the CAPEX and the OPEX ([0119], Table 2).

**Regarding claims 5 and 35**, Ngi further discloses wherein the instructions (b) comprise instructions for causing the computer to engineer the network architecture for the business solution ([0055]).

**Regarding claim 6**, Ngi does not disclose wherein the instructions (d) comprise instructions for causing the computer to engineer the network management processes and the service and customer management processes for managing the network architecture for the business solution. However, EURESCOM teaches the network management processes and the service and customer management processes for managing the network architecture for the business solution (D2, Volume 1: page 11, Table 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include the management processes of both the network and the servicing customers in order to enable a comprehensive business decision.

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**Regarding claims 7 and 38**, Ngi further discloses wherein the instructions (h) comprise instructions for causing the computer to display the business parameters in tables and graphical charts for the business solutions over the pre-determined study period ([0114], [0123]-[0124]).

**Regarding claims 8 and 34**, Ngi does not disclose wherein the instructions (c) comprise instructions for causing the computer to determine a network architecture cost and a leasing cost for the network architecture for the business solution. However, EURESCOM teaches to determine a network architecture cost and a leasing cost for the network architecture for the business solution (D1, Volume 2: page 5, paragraph 1 and D2, Volume 2: pages 30-31, Section 3.2.2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include all costs (leasing costs as well) in order to enable a comprehensive business decision.

**Regarding claim 9**, Ngi does not disclose wherein the instructions (f) comprise instructions for causing the computer to validate and calibrate the data and options; the network architecture cost; and the leasing cost for said network architecture for the business. However, EURESCOM teaches to validate and calibrate the data and options; the network architecture cost; and the leasing cost for said network architecture for the business solution (D1, Volume 2: page 28, paragraph 1; page 5, paragraph 1; D2, Volume 2: pages 30-31, Section 3.2.2; pages 34-35, Section 3.4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to validate and calibrate data (options and costs) in order to enable an accurate and comprehensive business decision.

**Regarding claim 10**, Ngi does not disclose wherein the instructions (b) further comprise

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instructions for causing the computer to determine an owned network elements (NEs) count; a leased NEs count; an owned customer premise equipment (CPE) count; a leased CPE count; an owned links count; a leased links count; and a leased ports count for said network architecture; and wherein said network architecture having NEs, CPE, and links from the same or different equipment suppliers. However, EURESCOM teaches to determine an owned network elements (NEs) count (D1, Volume 2: page 14, paragraph 3); a leased NEs count (D1, Volume 2: page 86, paragraph 7); an owned customer premise equipment (CPE) count (D1, Volume 2: page 14, paragraph 3); a leased CPE count (D1, Volume 2: page 86, paragraph 7); an owned links count (D1, Volume 2: page 57, paragraphs 8-9; page 60, paragraph 3); a leased links count (D2, Volume 2: page 67, Sections 6.3.1.1 and 6.3.1.2); and a leased ports count for said network architecture (D2, Volume 2: page 64, paragraph 6); and wherein said network architecture having NEs, CPE, and links from the same or different equipment suppliers (suppliers (D1, Volume 2: page 49, paragraph 5; page 50, paragraph 5; page 86, paragraph 7)). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to have the counts of items to allow for calculation of costs in order to enable a comprehensive business decision.

9. **Claims 11-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngi in view of EURESCOM and further in view of Arbel et al., U.S. Patent Application Publication Number 2004/0008673 A1 (hereinafter referred to as Arbel).

**Regarding claim 11**, Ngi does not disclose wherein the instructions (c) further comprise instructions for causing the computer to determine a price per network element (NE), a footprint

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per NE cost, a power consumption per NE cost; a price per CPE, a footprint per CPE cost, and a power consumption per CPE cost; and a price per link and a link transmission rate.

However, EURESCOM teaches to determine a price per network element (NE) (D1, Volume 2: page 64, paragraphs 2-4),...and a power consumption per NE cost (D2, Volume 2: page 34, Table 7; page 35, Table 9); a price per CPE (D1, Volume 2: page 64, paragraphs 2-4),...and a power consumption per CPE cost (D2, Volume 2: page 34, Table 7; page 35, Table 9); and a price per link and a link transmission rate (D1, Volume 2: page 57, paragraphs 8-9; page 60, paragraph 3 and D2, Volume 2: Page 68, Section 6.3.1.2).

Neither Ngi nor EURESCOM disclose costs relating to footprints. However, Arbel teaches a footprint per NE cost ([0025], [0074])...a footprint per CPE cost ([0025], [0074]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Ngi and EURESCOM combination to include all costs (those relating to footprints as well) in order to enable a comprehensive business decision.

**Regarding claim 12**, Ngi does not disclose wherein the instructions for determining the network architecture cost comprise instructions for causing the computer to compute a total owned NEs cost; a total owned CPE cost; and a total owned links cost for said network architecture for the business solution; and wherein the instructions for determining the leasing cost comprise instructions for causing the computer to compute a total footprints cost and a total power consumptions cost for said owned NEs and CPE.

However, EURESCOM and Arbel further teach wherein the means for determining the network architecture cost comprises a means for computing a total owned NEs cost; a total owned CPE cost; and a total owned links cost for said network architecture for the business solution (D1,

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Volume 2: page 47, paragraph 5; page 65, paragraph 1) and wherein the means for determining the leasing cost comprises a means for computing a total footprints cost (Arbel, [0025], [0074]) and a total power consumptions cost for said owned NEs and CPE (D2, Volume 2: page 34, Table 7; page 35, Table 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi to calculate total costs (of footprints as well) in order to enable a comprehensive business decision.

**Regarding claim 13**, Ngi does not disclose wherein the instructions (c) further comprise instructions for causing the computer to determine a leased per NE cost, a footprint per NE cost, and a power consumption per NE cost; a leased per CPE cost, a footprint per CPE cost, and a power consumption per CPE cost; a leased per link cost; a leased link per unit length cost, a unit length per link count, and a link transmission rate; and a leased per port cost.

However, EURESCOM further teaches to determine a leased per NE cost (D1, Volume 2: page 86, paragraph 7),...and a power consumption per NE cost (D2, Volume 2: page 34, Table 7; page 35, Table 9); a leased per CPE cost (D1, Volume 2: page 86, paragraph 7),...and a power consumption per CPE cost (D2, Volume 2: page 34, Table 7; page 35, Table 9); a leased per link cost; a leased link per unit length cost, a unit length per link count (D2, Volume 2: page 67, Sections 6.3.1.1 and 6.3.1.2), and a link transmission rate (D1, Volume 2: page 57, paragraphs 8-9; page 60, paragraph 3 and D2, Volume 2: Page 68, Section 6.3.1.2); and a leased per port cost (D2, Volume 2: page 64, paragraph 6). It would have been obvious to include leasing costs in order to enable a comprehensive business decision.

Neither Ngi nor EURESCOM disclose costs relating to footprints. However, Arbel teaches a footprint per NE cost ([0025], [0074])...a footprint per CPE cost ([0025], [0074]). It would have

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been obvious to one of ordinary skill in the art at the time of the invention to modify the Ngi and EURESCOM combination to include all costs (those relating to footprints as well) in order to enable a comprehensive business decision.

**Regarding claim 14**, Ngi does not disclose wherein the instructions for determining the leasing cost comprise instructions for causing the computer to compute a total leased NEs cost; a total leased CPE cost; a total footprints cost and a total power consumptions cost for said leased NEs and CPE; a total leased links cost; a total leased links for unit length cost; and a total leased ports cost for said network architecture for the business.

However, EURESCOM further teaches to compute a total leased NEs cost (D1, Volume 2: page 86, paragraph 7);... a total power consumptions cost for said leased NEs (D2, Volume 2: page 34, Table 7; page 35, Table 9);... a total leased CPE cost (D1, Volume 2: page 86, paragraph 7);...and a total power consumptions cost for said leased CPE (D2, Volume 2: page 34, Table 7; page 35, Table 9);... a total leased links cost and a total leased links for unit length cost (D2, Volume 2: page 67, Sections 6.3.1.1 and 6.3.1.2); and a total leased ports cost (D2, Volume 2: page 64, paragraph 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to calculate total leasing costs in order to enable a comprehensive business decision.

Neither Ngi nor EURESCOM disclose total costs relating to footprints. However, Arbel teaches a footprint per NE cost ([0025], [0074])...a footprint per CPE cost ([0025], [0074]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Ngi and EURESCOM combination to include all costs (those relating to footprints as well) in order to enable a comprehensive business decision.

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10. **Claims 15-19, 21-26, and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngi et al. in view of EURESCOM and further in view of Mobile LRIC model specification (hereinafter Mobile).

**Regarding claims 15 and 37**, Ngi does not disclose wherein the instructions (e) comprise instructions for causing the computer to: determine a network management processes cost, wherein the network management processes cost comprises costs for inside plant maintenance, outside plant maintenance, network engineering, network provisioning, installation, testing, and repairs for each network element in the network architecture for the business solution; determine a service and customer management processes cost, wherein the service and customer management processes cost comprises costs for customer relationship management (CRM), work order management (WOM), network inventory management (NIM), service activation and provisioning (SAP), fault management (FM), performance management (PM), accounting and billing, and security management for each link in the network architecture for the business solution; and determine a management processes cost which comprises the network management processes cost and the service and customer management processes cost.

However, EURESCOM teaches Identification of sources of running costs, such as Customer care management, Service & Service management, Network and system management, Network elements & system elements, and Physical network and infrastructure consisting of cables, ducts, cabinets, and buildings. EURESCOM further characterizes these costs as they relate to Maintenance processes, Operational processes, and Administrative processes, for example, Customer billing, Service fault management, Service set-up & configuration, Network maintenance & restoration, Inventory & data management, Network provisioning, Network



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performance management, Security management, and Broken cables (D2, Volume 2: pages 32-35). EURESCOM further discloses "Costing the network elements" (D2, Volume 2: page 68).

Mobile teaches cost categories, which include Network management, Billing, Customer care, and Indirect engineering expenditure (slide 29). Mobile further teaches examples of Network elements, including links (slide 258), and examples of indirect and direct costs (slide 263).

Mobile further teaches *total direct investment cost per network element purchased, in each year*; and *total direct annual operating expenses per network element in operation, in each year* (slide 264).

The costs recited are well-known costs. For example, costs for maintenance or accounting and billing are well-known business costs. Other costs such as network provisioning or service activation and provisioning are well-known industry specific costs. That the costs are not categorized in the same manner does not effectively serve to patentably distinguish the claimed invention over the prior art. It would have been obvious to one of ordinary skill in the art at the time of the invention to include or not to include certain costs depending on how comprehensive or limiting one chooses to be, but it would not be invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM and Mobile to include all costs in order to enable a comprehensive business decision.

**Regarding claim 16**, Ngi does not disclose wherein the instructions for engineering the network management processes comprise instructions for causing the computer to engineer at least one of the following processes: inside plant maintenance; outside plant maintenance; network

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engineering; network provisioning; installation; testing; and repairs. However, EURESCOM teaches network provisioning as a management process (D2, Volume 1: page 11, Table 1; page 12, Table 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include network provisioning as a management process in order to enable a comprehensive business decision.

**Regarding claim 17**, Ngi does not disclose causing the computer to determine the network management processes cost for said network management processes for at least one of: a manual operations mode; a mechanized operations mode; and a manual and mechanized operations mode. However, EURESCOM teaches causing the computer to determine the network management processes cost for said network management processes for at least one of: a manual operations mode; a mechanized operations mode; and a manual and mechanized operations mode (D2, Volume 1: page 12, Table 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to consider the cost per NE for network maintenance to enable a comprehensive business decision.

**Regarding claim 18**, Ngi does not disclose wherein the instructions for engineering the service and customer management processes comprise instructions for causing the computer to engineer at least one of the following processes: customer relationship management (CRM); work order management (WOM); network inventory management (NIM); service activation and provisioning (SAP); fault management (FM); performance management (PM); accounting and billing; and security management. However, EURESCOM teaches identifying Customer care management running costs (D2, Volume 1: page 11, Table 1). It would have been obvious to

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one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to include customer relationship as a management process in order to enable a comprehensive business decision.

**Regarding claim 19**, Ngi does not disclose instructions for causing the computer to determine costs of the customer relationship management (CRM); the work order management (WOM); the network inventory management (NIM); the service activation and provisioning (SAP); the fault management (FM); the performance management (PM); the accounting and billing; and the security management for at least one of: a manual operations mode; a mechanized operations mode; and a manual and mechanized operations mode. However, EURESCOM teaches the cost per link for a network (D2, Volume 2: page 68, Section 6.3.1.2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngi with the teachings of EURESCOM to consider the cost per link for a network to enable a comprehensive business decision.

**Regarding claims 21- 26**, EURESCOM teaches considering costs of management processes in order to make a business decision. Examiner asserts that considering more and more costs becomes a matter of choice as to how comprehensive or how limiting the number of costs to consider. Therefore, such differences as determining more and more process costs does not effectively serve to patentably distinguish the claimed invention over the prior art.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBRA ANTONIENKO whose telephone number is (571)270-3601. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on 571-272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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